



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/564,470

01/13/2006

Willem Blakborn

2134-034

9207

22429 7590 12/28/2007
LOWE HAUPTMAN HAM & BERNER, LLP
1700 DIAGONAL ROAD
SUITE 300
ALEXANDRIA, VA 22314

EXAMINER

NGUYEN, HOA CAO

ART UNIT	PAPER NUMBER
----------	--------------

2841

MAIL DATE	DELIVERY MODE
-----------	---------------

12/28/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/564,470

Applicant(s)

BLAKBORN, WILLEM

Examiner

Hoa C. Nguyen

Art Unit

2841

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1pg.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Vicich (US 6159045).

Regarding claim 1, as shown in figures 1-5 and column 3, line 58 to column 4, line 67, Vicich discloses a component for a circuit board 40 (figure 4), the component comprising:

(a) a housing 11 (body, figure 1) including at least one peg 20a/20b/20c/20d/20e (fasteners, figure 1) for engaging a hole 42 (through-hole, figure 4) in the circuit board;

(b) the peg having at least one detent lug 27 (tail portion, figure 5) which projects in the radial direction relative to the peg beyond the peg outer periphery;

(c) the detent lug being arranged on the peg such that the outer periphery of the peg is smaller in the region of the detent lug than the diameter of the hole in the circuit board (clearly shown in figure 5);

(d) the outer periphery of the section of the peg protruding into the hole in the circuit board being such that between the outer periphery of the peg section and the inner wall 41 of the hole in the circuit board, over at least a portion of the outer periphery there is an intermediate space with capillarity for solder 50 (clearly shown in figure 5),

such that solder situated on the surface of the circuit board during a soldering procedure penetrates by capillary action into the intermediate space, filling it.

Regarding claim 2, as clearly shown in figure 5, Vicich discloses the detent lug is arranged on the peg such that with the component placed fully on the circuit boards, the detent lug is within the hole in the circuit board.

Regarding claim 3, Vicich discloses the periphery of the peg in the longitudinal direction over the whole section situated in the hole in the circuit board includes at least one cut-out (no number, considering the cut-out on surface of the fastener 20, between the fastener and the wall 41 shown in figure 5).

Regarding claims 4 and 7, Vicich discloses the hole in the circuit board is metallised (solder 44).

Regarding claims 5 and 8, Vicich discloses the peg is made of plastics.

Regarding claim 6, Vicich discloses the periphery of the peg in the longitudinal direction over the whole section situated in the hole in the circuit board includes at least one cut-out (no number, considering the cut-out on surface of the fastener 20, between the fastener and the wall 41 shown in figure 5).

Regarding claim 9, Vicich also discloses a method of inserting the component into the circuit board, the method being performed by applying soldering paste 44 on the circuit board around at least a portion of the periphery of the hole, placing the component into the circuit board with the peg in the hole in the circuit board, heating the solder around the hole such that the solder penetrates by capillary action into the

intermediate space with the capillarity, and cooling the solder which has penetrated into the hole, such that the solder which has penetrated into the hole hardens.

Citation of Relevant Art

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Modinger (US 7275315) discloses a method for repair soldering of multi-pole miniature plug connectors.

Downes et al. (US 5589669) disclose an electrical contact for printed circuit boards.

Kinsey et al. (US 5571033) disclose an electrical connector having press-fit contacts for circuit board mounting.

Sinclair et al. (US 5410452) disclose a printed circuit board electrical adaptor pin.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hoa C. Nguyen whose telephone number is 571-272-8293. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez can be reached on 571-272-2245. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Application/Control Number:
10/564,470
Art Unit: 2841

Page 5

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Hoa C. Nguyen
12/21/07



TUAN T. DINH
PRIMARY EXAMINER

12/21/07